

REMARKS

Summary of Substance of Interview

Applicant thanks the Examiner for the courteous reproductive interview conducted on October 10 and 11, 2007. During the interview, Applicants' representative noted that the finality of the Office Action dated September 7, 2007 was improper since the application contains material which was presented but denied entry because new issues were raised that required further consideration and/or search. The Examiner agreed, and stated that a new Office Action would be issued withdrawing the finality of the September 7 Office Action, and resetting the period for response from the mailing data of the new Office Action.

The rejection of independent claim 1 was also discussed with the Examiner. The Examiner stated that the claim appeared to lack structural recitation, and possible amendments to overcome the alleged lack of structure were discussed. In particular, the Examiner indicated that amending claim 1 to recite "a propagation constant difference between the fibers in the fusion elongation portion" may provide sufficient structure to overcome the rejections. However, no agreements with respect to the claims were reached.

Claim Rejections

Claims 1 and 15-22 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Pat. No. 6,701,046 to Pianciola *et al.* ("Pianciola") in view of U.S. Pat. Pub. No. 2002/0136508 to Donno *et al.* ("Donno"). Claim 1 has been amended to incorporate the above-noted features suggested in the Examiner as well as the limitations of claim 19. Claim 19 has been canceled without prejudice or disclaimer. Applicants submits that amended claim 1 would not have been rendered obvious by the cited references.

The combination of Pianciola and Donno does not disclose or suggest at least wherein the λ_1 -band and λ_2 -band optical fibers in the plurality of optical fibers have a propagation constant difference between the fibers in the fusion elongation portion of 1×10^{-4} rad/m or smaller at a fusion elongating ratio in a range of 50% or less, as recited in the claim. As suggested by the Examiner, claim 1 has been amended to recite the structure of the fusion elongation portion. Both Pianciola and Donno are directed to optical couplers, however, the references either alone or in combination to not disclose or suggest the above-noted features claimed by Applicant.

As illustrated in Figs. 16 and 20 of Applicants' specification reproduced below, fusion elongation portions of exemplary embodiments of the present invention, which have relative refractive index differences $\Delta_{(1)}$ between the core and cladding ($\Delta_{(1)} = 0.8\%$ in Fig. 16 and $\Delta_{(1)} = 0.7\%$ in Fig. 20), exhibit the above characteristics. On the other hand, Fig. 14, also reproduced below, shows that comparative fusion elongation portions of other couplers formed with a $1.55 \mu\text{m}$ -band optical fiber and a $0.98 \mu\text{m}$ -band optical fiber do not exhibit the claimed characteristics. Similarly, the cited references do not disclose or suggest the claimed characteristics, and therefore do not necessarily exhibit such characteristics. Thus, a *prima facie* case of obviousness has not been established. See MPEP § 2112.01.

FIG.16

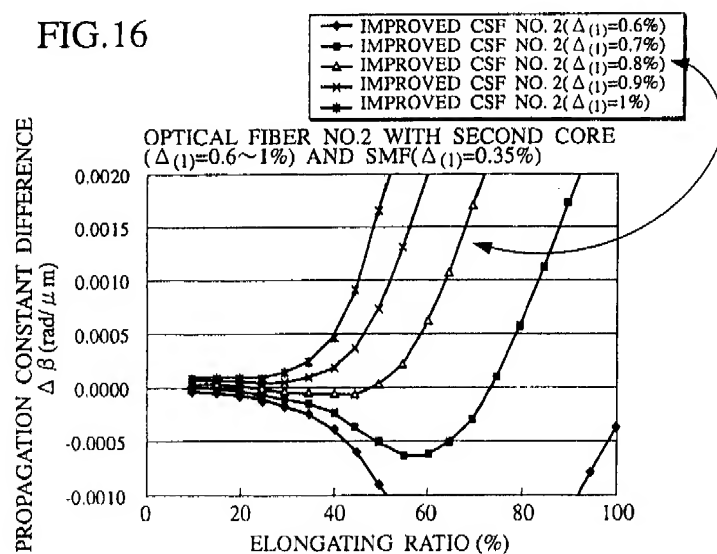


FIG.20

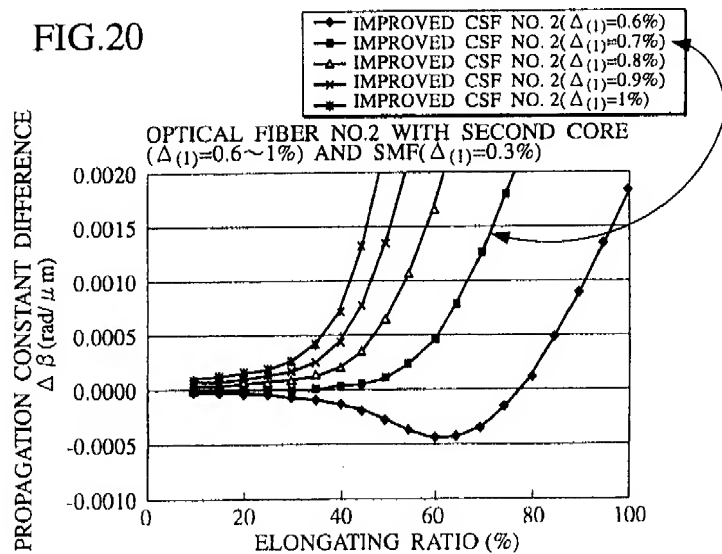
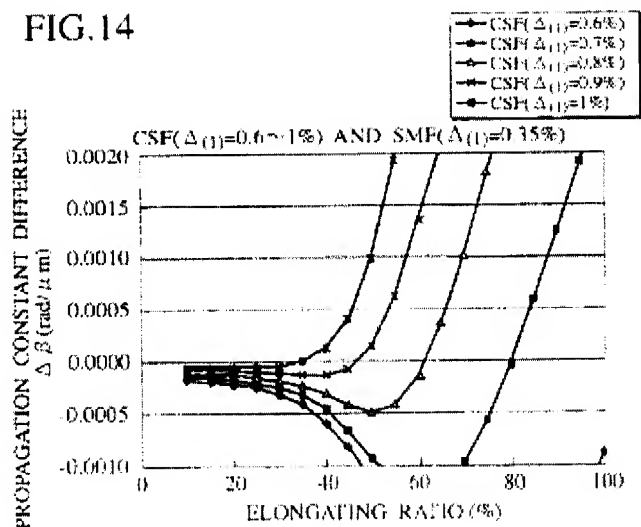


FIG. 14



Therefore, it would not have been obvious to one of ordinary skill in the art at the time the invention was made to combine the references as attempted by the Examiner since the combined references do not disclose or suggest all the claimed features.

Accordingly, claim 1 is patentable over the combination of Pianciola and Donno. Claims 15-18 and 20-22, which depend from claim 1, are patentable at least by virtue of their dependence.

Conclusion


In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.111
Application No.: 10/760,374

Attorney Docket No.: Q78752

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Francis G. Plati, Sr.", written over a horizontal line.

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